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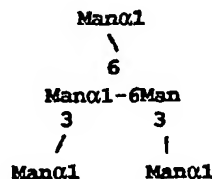
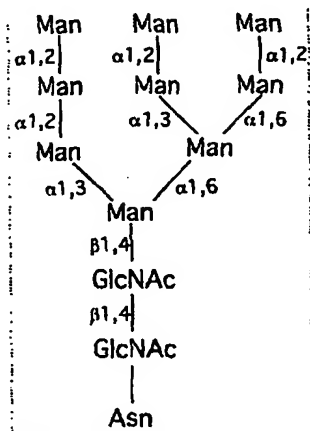
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(54) Title: ANTI-ADHESIVE COMPOUNDS TO PREVENT AND TREAT BACTERIAL INFECTIONS



(57) Abstract: The present invention
provides compounds and compositions
capable of inhibiting the attachment
of Gram-negative bacteria on a host
epithelium. Accordingly, said compounds
and compositions can for example be used
for the manufacture of a medicament to
treat urinary, lung and gastrointestinal
infections caused by said Gram-negative
bacteria.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 001 823 A (HULTGREN ET AL) 14 December 1999 (1999-12-14) column 1, line 57 - column 2, line 22; example 8	1-9
Y	FIRON N ET AL: "CARBOHYDRATE SPECIFICITY OF THE SURFACE LECTINS OF ESCHERICHIA-COLI KLEBSIELLA-PNEUMONIAE AND SALMONELLA-TYPHIMURIUM" CARBOHYDRATE RESEARCH, vol. 120, 1983, pages 235-249, XP002338386 ISSN: 0008-6215 page 236, paragraphs 1,2; table IV ----- -/-	1-9

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
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Y	<p>FIRON N ET AL: "Carbohydrate-binding sites of the mannose-specific fimbrial lectins of Enterobacteria"</p> <p>INFECTION AND IMMUNITY 1984 UNITED STATES, vol. 43, no. 3, 1984, pages 1088-1090, XP002338387</p> <p>page 1088, column 1, paragraphs 1,2; table 1</p> <p>-----</p>	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6001823	A	14-12-1999	AT 271060 T	15-07-2004
			AU 704114 B2	15-04-1999
			AU 1184495 A	06-06-1995
			CA 2176808 A1	26-05-1995
			DE 69433901 D1	19-08-2004
			DE 69433901 T2	28-07-2005
			DK 730601 T3	06-06-2005
			EP 0730601 A1	11-09-1996
			ES 2225834 T3	16-03-2005
			JP 9505309 T	27-05-1997
			WO 9514028 A2	26-05-1995
			US 6153396 A	28-11-2000
			US 2003198992 A1	23-10-2003
			US 2002045199 A1	18-04-2002
			US 2002034774 A1	21-03-2002
			US 6872542 B1	29-03-2005
			US 2002146428 A1	10-10-2002
			US 2003224468 A1	04-12-2003